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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,118	01/16/2002	Chikara Yokoyama	Q68037	3824

7590 05/21/2003
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EXAMINER

PHAM, LY D

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,118

Applicant(s)

YOKOYAMA ET AL.

Examiner

Ly D Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

FINAL ACTION

DETAILED ACTION

1. Applicants' Amendment A has been entered in Office Paper No. 7. Claim 1 has been amended.
2. Claims 1 – 6 are presented for the examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. (US Pat 4,313,180) in view of Abe et al. (US Pat 6,018,802).

Regarding claim 1, Mochizuki et al. disclose a data backup apparatus comprising:

a dynamic RAM for storing data (fig. 1, dynamic ram 7);

detection mean for detecting an OFF command of a main power supply (fig. 1, detection circuit 4);

control means for changing the dynamic RAM to a second refresh mode, which is powered by a small capacity battery, when the main power supply is interrupted (col. 1, lines 64 – 68 and lines 36 – 64). Although Mochizuki et al. did not clearly disclose the control means for

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arbitrarily changing the dynamic RAM to a self-refresh mode regardless of the operative state of a CPU, this feature is shown by Abe et al. (col. 2, lines 47 – 51).

The DRAM has a self-refreshing mode which is activated by an external signal. This external signal is the “stop of the main power supply” (abstract). “..., it refreshes by itself without being supplied with an external control signal ...” indicates a condition in which the operative state of a CPU is irrelevant—regardless of the operative state of a CPU.

Therefore, it is considered obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the feature shown by Abe et al. to the invention of Mochizuki et al. so that longer back-up time is attained (col. 9, lines 17 – 21).

5. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. (US Pat 4,313,180) and Abe et al. (US Pat 6,018,802), and further in view of Abe (US Pat 5,590,082).

Regarding **claim 2**, although Mochizuki et al. and Abe et al. disclose the data backup apparatus according to claim 1, except wherein said control means makes the dynamic RAM supplied with power from the main power supply during the period from the detection of the OFF command of the main power supply to completion of the changing to the self-refresh mode (col. 2, lines 9 – 15). Therefore, it is obvious to one of ordinary skill in the art, at the time the invention was made, to include the feature shown by Abe to the system of Mochizuki et al. and Abe et al. so that necessary preceding processes can be performed well by the DRAM control circuit (col. 2, lines 15 – 20).

Regarding **claim 5**, Abe further discloses the feature wherein said control means stops feeding of power from the main power supply to a predetermined equipment, when an output voltage of the main power supply is reduced (col. 2, lines 9 – 28: to completely finish the data transfer being executed and stop the following transfer as well as cause the refreshing function to be executed and the self-refresh mode to be established).

Allowable Subject Matter

6. Claims 3 – 4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. When responding to the office action, Applicant(s) are advised to provide the examiner with the page and line numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

8. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).

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9. Any inquiry concerning this communication on earlier communications from the examiner should be directed to Ly Pham, whose telephone number is 703-305-4862. The examiner can normally be reached on Monday – Friday from 8:30am to 5:00pm, alternate Friday off. The examiner's supervisor, David Nelms, can be reached at 703-308-4910. The fax number for the organization where this application or proceeding is assigned is 703-308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Ly Pham

May 15, 2003


HOAI HO
PRIMARY EXAMINER